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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,279	01/21/2004	Bernard Grush	3914 0006	9840

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DEETH WILLIAMS WALL LLP
150 YORK STREET
SUITE 400
TORONTO, M5H 3S5
CANADA

EXAMINER	
TRIEU, VAN THANH	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,279	GRUSH, BERNARD	
	Examiner	Art Unit	
	Van T. Trieu	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: a period (.) at the end of line 5. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kolls** [US 6,895,310].

Regarding claim 1, the claimed system for monitoring, measuring, and/or usage metering of a vehicle involving tracking continuous movement and position of the vehicle comprising:

an apparatus mounted on or in the vehicle (the in-vehicle device 200 for a vehicle 314, see Fig. 1B-1M); comprising the receiver for receiving positioning signals (the GPS 268, see Figs. 1Q and 4); and the motion detector (the motion sensor 240, see Fig. 4); and the RFID and/or DSRC element (the RFID device, Fig. 1N, col. 13, lines 60-64); and the processor for forming a continuous, time-marked position-log from the positioning signals, comprising a memory (the microcontroller 234 including EEPROM 204, see Fig.

4, col. 41, lines 48-66); and the storage element (the EEPROM/FLASH 208, see Fig. 4, col. 41, lines 66-67 and col. 42, lines 1-4); and the two-way wireless telecommunication element, such as GPRS, to transmit position-logs (the wireless transceiver 258, wireless data link 276, see Fig. 4, col. 45, lines 51-67, col. 46, lines 1-14 and col. 47, lines 33-47); and

a central processing system (the PC computer 310 is connected to communication interface device 100, see Figs. 1A and 3); and comprising the central telecommunication element to demand, receive and acknowledge receipt of position-logs and system information from the apparatus (the wireless transceiver 134 and wireless phone transceiver 140, see Fig. 3, col. 36, lines 36-61); and the digital maps and databases for containing usage fees, premium rules, parking fees and schedules (the LCD display 114 for displaying geographic data stored in NOVRam/RAM optional Date Timekeeper Function 106, see Figs. 1H, 1Q-1-1R and 3, col. 9, lines 52-64, col. 36, lines 36-50 and col. 37, lines 18-26); and the central processor to further process position-logs, calculate user fees and generate invoices, maps and data feeds (the microcontroller 130, see Figs. 1E, 1Q, 1R and 3, col. 9, lines 22-38, col. 15, lines 16-67, cols. 16-19, col. 20, lines 1-29, col. 36, lines 36-43 and col. 37, lines 37-45), and the central storage element (the Internet based data or PC 310 data, see Figs 1A and 3, col. 39, lines 20-28).

Regarding claim 2, the claimed receiver receives one or more positioning signals comprising at least one type of signal from the group represented by GPS, GNSS, Galileo, GLONASS, and Loran (the GPS 268, see Fig. 4).

Regarding claim 4, all the claimed subject matters are cited in respect to claim 1 above and including the position-logs are sent encrypted and on a scheduled and/or demand basis from the vehicle to the central processing system (the encrypted information data over the network communications, see col. 39, lines 50-59); and the central processing system and the apparatus comprises means to determine whether the apparatus is operating correctly (the interface communication device 100 and in-vehicle device 200 are controlled by a programmable microprocessor/microcontroller 130, 234 to assure of correct operations with other circuits, interconnections and related data information, see Figs. 1-4, col. 8, lines 26-44); and the redundantly methodology (the data repeater and the wireless repeater, see Fig. 1V, col. 22, lines 1-30).

Regarding claim 19, all the claimed subject matters are cited in respect to claims 1 and 4 above.

Regarding claim 20, the method claimed limitations are met by the apparatus claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kolls** [US 6,895,310] in view of **Breed et al** [US 6,768,944].

Regarding claim 3, **Kolls** fails to disclose the positioning signals further includes a type which is boosted, corrected, differenced or retransmitted location signals for resolving reception problems including multi-path, shadow, scatter, and ionospheric disturbance. However, **Kolls** teaches that the in-vehicle device 200 includes a microcontroller 234 can data-hop serving as a data repeater essentially receiving data from another vehicle and forwarding the data on to another vehicle, or to the wireless data destination. The in-vehicle device 200 can effectuate a wireless mobile network of wireless repeaters for extending the range of other wireless devices, see Fig. 1V, col. 22, lines 1-30. **Breed et al** suggests that the vehicle system 50 includes a control processor 100 including GPS ranging, DGPS Corrections and Inertial Navigation system Calibrations and Control for correcting of errors of GPS data, multi-paths errors and atmospheric errors by the DGPS to update rates and retransmitting of data network, see Fig. 4, col. 16, lines 62-67, col. 17, lines 1-5, col. 39, lines 5-64, col. 40, lines 33-54 and col. 42, lines 37-43. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the control processor with DGPS functions and retransmitted

functions of **Breed et al** for the microcontroller of **Kolls** for reducing or minimizing of data errors received from the GPS or other network communications.

4. Claims 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kolls** [US 6,895,310] in view of **Lightner et al** [US 6,732,031].

Regarding claim 5, all the claimed subject matters are cited in respect to claim 1 above and including the data feeds comprising usage, volume and/or congestion information may be generated for control, management and reporting and feedback, see col. 17, lines 14-25 and col. 19, lines 42-53; but **Kolls** fails to disclose the road usage can be metered and assessed for pay-as-you drive insurance premiums. However, **Kolls** teaches that the programmable microprocessor/microcontroller 130, 234 calculates algorithm for providing accurate amount of toll fee, distance traveled, certain roadway points, parking time, tunnels and/or toll road charged to a traveling vehicle 314 regarding to all conditions including of traffic congestion, road conditions, weather conditions, see Figs. 1-4, col. 9, lines 22-64, col. 15, lines 16-50, col. 16, lines 30-65, col. 17, lines 67, col. 18, lines 1-363-67, col. 19, lines 1-4 and col. 37, lines 37-45. Lightner et al suggests that a programmable microprocessor 21 disposed within a vehicle for controlling and processing data including algorithms for analyzing data to characterize vehicle driving patterns for insurance purposes, algorithms for determining driving patterns for use-based leasing and algorithms for recording vehicle use and driving patterns for tax purposes, see Figs. 1-4, col. 3, lines 3-29 and col. 9, lines 19-50. Therefore, it would have been obvious to one skill in the art at the time the invention

was made to substitute the programmable microprocessor algorithms of **Lightner et al** for the programmable microprocessor/microcontroller of **Kolls** for computing all the fees precisely use of the vehicle traveling along a road, since the microprocessor and/or microcontroller can be programmed with the algorithms software.

Regarding claim 6, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 5 above and including the marks each segment of the position log as a parking episode or a journey segment, see Figs. 1Q-1S, col. 15, lines 16-67 and cols. 16-20; and filters and compresses each parking episode or journey-log according to its special characteristics, which reads upon the programmable microprocessor/microcontroller 130, 234 includes abilities of changing, updating and filtering of data information related to the traveling vehicles such as road conditions, weather conditions, vehicle conditions, geographic data log, parking and fee statuses, see Figs. 1-4, col. 4, lines 47-67, cols. 15-20 and col. 69, lines 46-65.

Regarding claim 7, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 6 above, see Figs. 1-14.

Regarding claim 8, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 6 above.

Regarding claim 9, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 6 above and including the DP line compression algorithm as modified by retaining time-stamp information and injecting an optimally compressed congestion-log for congestion-related pricing, navigation, control, and mapping applications, and for extraction of a pure position-only track-log subset exactly matching the standard DP line compression, which reads upon the programmable microprocessor/microcontroller 130, 234 calculates algorithm for providing accurate amount of toll fee, distance traveled, certain roadway points, parking time, tunnels and/or toll road charged to a traveling vehicle 314 regarding to all conditions including of traffic congestion, road conditions, weather conditions, see Figs. 1-4, col. 9, lines 22-64, col. 15, lines 16-50, col. 16, lines 30-65, col. 17, lines 67, col. 18, lines 1-363-67, col. 19, lines 1-4 and col. 37, lines 37-45.

Regarding claim 10, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 5 above.

Regarding claim 11, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claims 5 and 9 above.

Regarding claim 12, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claims 5 and 11 above.

Regarding claim 13, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 5 above.

Regarding claim 14, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claims 1 and 5 above.

Regarding claim 15, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 14 above.

Regarding claim 16, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 5 above, and including purpose of adjustment of a financial record (the fees changes due to different environmental conditions such as traffic congestion, weather conditions and distance traveled, see Figs. 1-14).

Regarding claim 17, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claim 5 above.

Regarding claim 18, all the claimed subject matters are discussed between **Kolls** and **Lightner et al** in respect to claims 4 and 5 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Magbie et al discloses a system for protected two-way communication between a shard control database and at least one remotely located protector module such as automobile vehicle. [US 6,657,535]

Cannon et al discloses a wireless piconet transceiver is mounted in a vehicle and a complementary fixed wireless piconet transceiver is mounted in a garage, service station, police squad car, etc. for communication with the vehicle when parked adjacent thereto. [US 6,408,232]

6. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (571) 272-2981.

Van Trieu
Primary Examiner
Date: 8/17/05